

REMARKS

Reconsideration of the present application is respectfully requested. The applicant would like to thank the Examiner and his supervisor for the courtesy of the interview conducted on June 16, 2004.

New claim 11, set forth herein, is specifically indicated to be directed to extracting essential oils from a plant by steam distillation, and has been simplified to more particularly point out the invention.

The claims presently stand rejected under 35 U.S.C. §103(a) as unpatentable over JP-H6227994 (JP'994) in view of three secondary references, namely JP60-115699, the Chemical Engineer's Handbook (Perry), and Sonekh, et al. (U.S. Patent no. 3,714,033).

According to the Examiner, the combined teachings of the four references render claims 1-8 and 10 unpatentable.

JP '994 teaches a process for the separation of essential oils via a steam distillation process. However, unlike the invention as presently claimed, JP '994 does not teach recycling of the hydrophilic phase, containing a hydrophobic absorbent, back to the steam distillation column. Because, as currently understood, there is no teaching or suggestion from the field of steam distillation, including the secondary JP '699 reference, that the hydrophilic phase can be recycled after adsorption to remove the hydrophobic phase, the examiner must rely upon the teachings from the Chemical Engineering Handbook (Perry) in an attempt to supply the teaching missing from the primary reference.

As the applicants have noted in their prior papers, Perry clearly teaches away from the present invention. As indicated in Perry "extraction distillation refers to those processes [in which] a high boiling solvent is added to a tray in a column to alter [relative] volatilities of the

main feed to the column. The alteration of volatilities is desired because of similarities in the vapor pressures of the feed components or (2) the presence of an azeotrope.” That Perry teaches away from the steam distillation process of the present application is plainly evident -- it simply bears no similarity to the extraction distillation process taught by Perry. The applicants have noted that steam distillation is a process where steam is introduced into an environment where an essential oil containing substance is present in order to “sweat” the oil out of the essential oil containing substance. The person of ordinary skill in the art would recognize that extraction distillation and steam distillation are fundamentally different processes for separating materials. Clearly, the hydrophilic phase of the present invention is not a “solvent” as the term is used in Perry, as the hydrophobic essential oil phase is adsorbed prior to the recycling step employed in the present invention. Thus, Perry’s teachings, as a whole, are believed to be irrelevant. It appears that Perry was selected as a reference only with regard to its teaching of recycling in a distillation process, while ignoring the substantial differences in the “recycling” processes of the claimed invention and the reference’s teachings.

That JP ‘994 and Perry teach away from the present invention is further apparent from the fact that, if one applied the teachings of Perry to the steam distillation process of the present invention, then one would include an additional component (i.e., extracting agent), that would affect the volatility of at least one component in the mixture.

In view of the aforementioned differences between “steam distillation”, as employed herein, and “extraction distillation” of Perry, it is respectfully submitted that the person of ordinary skill in the art would not look to Perry for solutions.

It is also submitted that the examiner has not identified the requisite motivation to continue the teachings of JP ‘994 and Perry. That recycling is commonly employed by

practitioners of extraction distillation fails to answer the very basic question that the examiner must affirmatively answer: What, at the time of filing the present application, motivates the person of ordinary skill in the art to incorporate into a steam distillation process, the recycling step (part (iii)) of claims 1 and 11? It is respectfully submitted that the examiner has engaged in a impermissible hindsight analysis, in relying upon “economics” or “common knowledge” of recycling of effluent. The applicants submit, that as a highly persuasive counterweight to the examiner’s purported identification of the “motivation to combine JP ‘994 and Perry, is that it appears that no steam distillation process can be identified where the hydrophilic phase is recycled after the hydrophobic phase is adsorbed. Surely, if it simply was a matter of “common knowledge” or economics, then it begs the question why the missing teaching cannot be identified from the art relating to steam distillation.

It is observed that the other secondary references do not cure the deficiencies of JP ‘994 and Perry.

The applicants observe that the examiner has elected to place weight upon the non-binding patentability assessments made during Chapter II proceedings in a foreign patent office. The examiner should recognize that the negative patentability assessment relied upon was overruled in the subsequent International Preliminary Examination Report issued on August 2, 2001. In fact, it was indicated therein that,

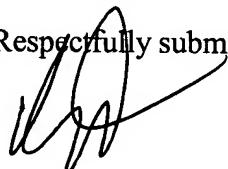
“None of the documents cited in the international search report discloses or fairly suggests a process for separating essential oils comprising a steam distillation step or extraction step and a subsequent adsorbing step wherein the hydrophilic phase leaving the adsorption vessel is recycled to the steam distillation or extraction step. This allows for reduced water and energy consumption.”

Furthermore, the applicants have received an allowance for the corresponding European application, recognizing that the inclusion of a recycling step in a steam distillation

process for extracting essential oils is novel and represents an inventive step over the state of the art. The examiner is urged to account for these developments when re-assessing the patentability of the present invention.

Wherefore, based upon the foregoing, it is submitted that the present application is in condition of allowance and a relatively early reply to this paper would be appreciated.

Respectfully submitted,



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